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OIPE  
JAN 03 2002  
PATENT & TRADEMARK

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
Wellington, et al.

Serial No.: 09/841,298

Filed: April 24, 2001

For: IN SITU THERMAL PROCESSING  
OF A COAL FORMATION TO  
PRODUCE A MIXTURE OF OLEFINS,  
OXYGENATED HYDROCARBONS,  
AND AROMATIC HYDROCARBONS

OIPE  
JAN 02 2002  
MAIL DATE CANCELLED  
PATENT & TRADEMARK

Examiner: Unknown

Group Art Unit: 1764

Atty. Dkt: 5659-06900

Certificate of Mailing 37 C.F.R. § 1.8(a)

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12-14-01 Jackie Pitre  
Date Jackie Pitre

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
Washington, D.C. 20231

Sir:

It is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 (references A1-A256 and B1) be considered by the Examiner and made of record. Copies of the listed documents are enclosed for the convenience of the Examiner.

Should any fees be required, the Commissioner is authorized to charge said fees to Conley, Rose & Tayon, P.C. Deposit Account No. 50-1505/5659-06900/EBM.

Respectfully submitted,

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Date: 12-14-01

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ATTY. DKT. NO. 5659-06900/TH1994

SERIAL NO. 09/841,298

APPLICANT: Wellington, et al.

GROUP: 1764

FILING DATE: April 24, 2001

**U.S. PATENT DOCUMENTS**

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	A1	760,304	05/1904	Butler			
	A2	1,342,741	06/1920	Day			
	A3	1,510,655	10/1924	Clark			
	A4	1,666,488	02/1927	Crawshaw			
	A5	1,913,395	11/1929	Karrick			
	A6	2,423,674	07/1947	Agren			
	A7	2,444,755	07/1948	Steffen			
	A8	2,466,945	02/1946	Greene			
	A9	2,472,445	06/1949	Sprong			
	A10	2,484,063	10/1949	Ackley			
	A11	2,497,868	02/1950	Dalin			
	A12	2,548,360	04/1951	Germain			
	A13	2,593,477	04/1952	Newman et al.			
	A14	2,595,979	05/1952	Pevere et al.			
	A15	2,630,306	01/1952	Evans			
	A16	2,634,961	04/1953	Ljungstrom			
	A17	2,642,943	06/1953	Smith et al.			
	A18	2,670,802	03/1954	Ackley			
	A19	2,695,163	11/1954	Pearce et al.			
	A20	2,732,195	01-24-56	Ljungstrom			
	A21	2,734,579	02-14-56	Elkins			
	A22	2,780,449	02-05-57	Fisher et al.			
	A23	2,777,679	01/1957	Ljungstrom			
	A24	2,780,450	02/1957	Ljungstrom			
	A25	2,786,660	03/1957	Alleman			
	A26	2,789,805	04/1957	Ljungstrom			
	A27	2,804,149	08/1957	Kile			
	A28	2,841,375	07/1958	Salomonsson			
	A29	2,902,270	09/1959	Salomonsson et al.			
	A30	2,906,337	09/1959	Henning			

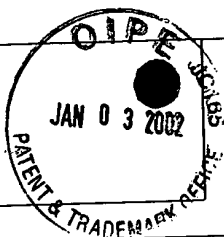
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ATTY. DKT. NO. 5659-06900/TH1094

APPLICANT: Wellington, et al.

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SERIAL NO. 09/841,298

GROUP: 1764

U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	A31	2,914,309	11/1959	Salomonsson			
	A32	2,923,535	02/1960	Ljungstrom			
	A33	2,939,689	06/1960	Ljungstrom			
	A34	2,954,826	10/1960	Sievers			
	A35	2,974,937	03/1961	Kiel			
	A36	2,994,376	08/1961	Crawford et al.			
	A37	2,998,457	08/1961	Paulsen			
	A38	3,004,603	10/1961	Rogers et al.			
	A39	3,007,521	11/1961	Trantham et al.			
	A40	3,095,031	06/1963	Eurenius et al.			
	A41	3,105,545	10/1963	Prats et al.			
	A42	3,106,244	10/1963	Parker			
	A43	3,110,345	11/1963	Reed et al.			
	A44	3,113,623	12/1963	Krueger			
	A45	3,114,417	12/1963	McCarthy			
	A46	3,131,763	05/1964	Kunetka et al.			
	A47	3,139,928	07/1964	Broussard			
	A48	3,142,336	07/1964	Doscher			
	A49	3,149,672	10/1964	Orkiszewski et al.			
	A50	3,163,745	12/1964	Boston			
	A51	3,164,207	01/1965	Thessen et al.			
	A52	3,182,721	05/1965	Hardy			
	A53	3,183,675	05/1965	Schroeder			
	A54	3,191,679	06/1965	Miller			
	A55	3,205,946	10/1965	Prats et al.			
	A56	3,207,220	10/1965	Williams			
	A57	3,208,531	10/1965	Tamplen			
	A58	3,209,825	10/1965	Alexander et al.			

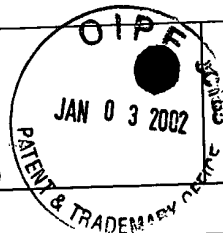
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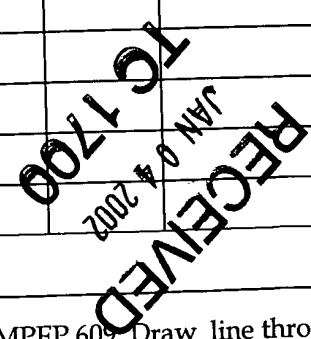
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U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	A59	3,237,689	03/1966	Justheim			
	A60	3,241,611	03/1966	Dougan			
	A61	3,250,327	05/1966	Crider			
	A62	3,267,680	08/1966	Schlumberger			
	A63	3,284,281	11/1966	Thomas			
	A64	3,338,306	08/1967	Cook			
	A65	3,528,501	09/1970	Parker			
	A66	3,595,082	07/1971	Miller et al.			
	A67	3,973,628	08/1976	Colgate			
	A68	3,992,148	11/1975	Child			
	A69	3,993,132	11/1977	Garrett			
	A70	4,016,239	04/1977	Fenton			
	A71	4,076,761	02/1978	Chang et al.			
	A72	4,089,372	05/1978	Terry			
	A73	4,093,026	06/1978	Ridley			
	A74	4,096,163	06/1978	Chang, et al.			
	A75	4,130,575	12/1978	Jorn et al.			
	A76	4,133,825	01/1979	Stroud et al.			
	A77	4,138,442	02/1979	Chang et al.			
	A78	4,186,801	02/1980	Madgavkar et al.			
	A79	4,250,230	02/1981	Terry			
	A80	4,250,962	02/1981	Madgavkar et al.			
	A81	4,273,188	06/1981	Vogel et al.			
	A82	4,274,487	06/1981	Hollingsworth et al.			
	A83	4,299,086	11/1981	Madgavkar et al.			
	A84	4,299,285	11/1981	Tsai et al.			
	A85	4,359,687	11/1982	Vinegar et al.			
	A86	4,363,361	12/1982	Madgavkar et al.			
	A87	4,366,668	01/1983	Madgavkar et al.			
	A88	4,378,048	03/1983	Madgavkar et al.			

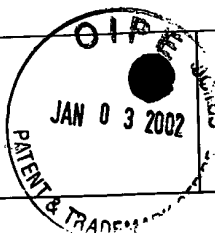


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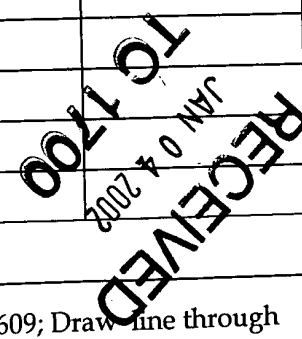
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U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	A89	4,381,641	05/1983	Madgavkar et al.			
	A90	4,398,151	08/1983	Vinegar et al.			
	A91	4,407,973	10/1983	van Dijk et al.			
	A92	4,409,090	10/1983	Hanson et al.			
	A93	4,444,258	04/1984	Kalmar			
	A94	4,501,445	02/1985	Gregoli			
	A95	4,530,401	07/1985	Hartman et al.			
	A96	4,540,882	10/1985	Vinegar et al.			
	A97	4,542,648	10/1985	Vinegar et al.			
	A98	4,570,715	02/1986	Van Meurs et al.			
	A99	4,571,491	02/1986	Vinegar et al.			
	A100	4,572,299	02/1986	Vanegmond et al.			
	A101	4,583,046	04/1986	Vinegar et al.			
	A102	4,583,242	04/1986	Vinegar et al.			
	A103	4,594,468	06/1986	Minderhoud			
	A104	4,597,441	07/1986	Ware et al.			
	A105	4,605,680	08/1986	Beuther et al.			
	A106	4,613,754	09/1986	Vinegar et al.			
	A107	4,616,705	10/1986	Stegemeier et al.			
	A108	4,635,197	01/1987	Vinegar et al.			
	A109	4,640,352	02/1987	Vanmeurs et al.			
	A110	4,644,283	02/1987	Vinegar et al.			
	A111	4,658,215	04/1987	Vinegar et al.			
	A112	4,663,711	05/1987	Vinegar et al.			
	A113	4,671,102	06/1987	Vinegar et al.			
	A114	4,716,960	01/1988	Eastlund et al.			
	A115	4,719,423	01/1988	Vinegar et al.			
	A116	4,728,892	03/1988	Vinegar et al.			
	A117	4,730,162	03/1988	Vinegar et al.			
	A118	4,743,854	05/1988	Vinegar et al.			

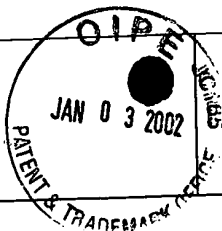


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EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	A119	4,762,425	08/1988	Shakkottai et al.			
	A120	4,769,602	09/1988	Vinegar et al.			
	A121	4,769,606	09/1988	Vinegar et al.			
	A122	4,793,656	12/1988	Siddoway et al.			
	A123	4,827,761	05/1989	Vinegar et al.			
	A124	4,848,924	07/1989	Nuspl et al.			
	A125	4,856,341	08/1989	Vinegar et al.			
	A126	4,860,544	08/1989	Krieg et al.			
	A127	4,866,983	09/1989	Vinegar et al.			
	A128	4,884,455	12/1989	Vinegar et al.			
	A129	4,886,118	12/1989	Van Meurs et al.			
	A130	4,927,857	05/1990	McShea III et al.			
	A131	4,974,425	12/1990	Krieg et al.			
	A132	4,983,319	01/1991	Gregoli et al.			
	A133	4,984,594	01/1991	Vinegar et al.			
	A134	4,987,368	01/1991	Vinegar			
	A135	4,994,093	02/1991	Wetzel et al.			
	A136	5,014,788	05/1991	Puri et al.			
	A137	5,046,559	10/1991	Glandt			
	A138	5,050,386	09/1991	Krieg et al.			
	A139	5,060,287	10/1991	Van Egmond			
	A140	5,060,726	10/1991	Glandt et al.			
	A141	5,065,818	11/1991	Van Egmond			
	A142	5,168,927	12/1992	Stegemeier et al.			
	A143	5,189,283	02/1993	Carl, Jr. et al.			
	A144	5,190,405	03/1993	Vinegar et al.			
	A145	5,207,273	05/1993	Cates et al.			
	A146	5,211,230	05/1993	Ostapovich et al.			
	A147	5,226,961	07/1993	Nahm et al.			
	A148	5,229,583	07/1993	van Egmond et al.			

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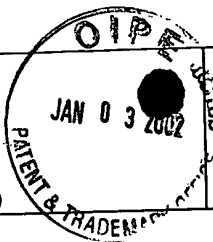
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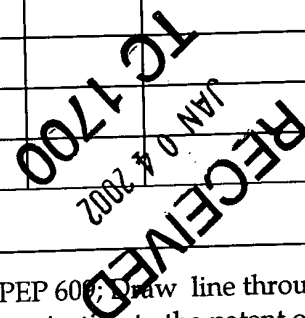
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	A149	5,236,039	08/1993	Edelstein et al.			
	A150	5,255,742	10/1993	Mikus			
	A151	5,297,626	03/1994	Vinegar et al.			
	A152	5,306,640	04/1994	Vinegar et al.			
	A153	5,318,116	06/1194	Vinegar et al.			
	A154	5,339,897	08/1994	Leaute			
	A155	5,340,467	08/1994	Gregoli et al.			
	A156	5,349,859	09/1994	Kleppe			
	A157	5,388,640	02/1995	Puri et al.			
	A158	5,388,641	02/1995	Yee et al.			
	A159	5,388,642	02/1995	Puri et al.			
	A160	5,388,643	02/1995	Yee et al.			
	A161	5,388,645	02/1995	Puri et al.			
	A162	5,391,291	02/1995	Winquist et al.			
	A163	5,392,854	02/1995	Vinegar et al.			
	A164	5,404,952	04/1995	Vinegar et al.			
	A165	5,409,071	04/1995	Wellington et al.			
	A166	5,411,089	05/1995	Vinegar et al.			
	A167	5,415,231	05/1995	Northrop et al.			
	A168	5,431,224	07/1995	Laali			
	A169	5,433,271	07/1995	Vinegar et al.			
	A170	5,437,506	08/1995	Gray			
	A171	5,439,054	08/1995	Chaback et al.			
	A172	5,454,666	10/1995	Chaback et al.			
	A173	5,497,087	03/1996	Vinegar et al.			
	A174	5,498,960	03/1996	Vinegar et al.			
	A175	5,525,322	06/1996	Willms			
	A176	5,553,189	09/1996	Stegemeier et al.			
	A177	5,554,453	09/1996	Steinfeld et al.			
	A178	5,566,756	10/1996	Chaback et al.			

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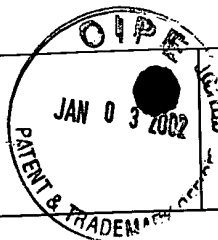
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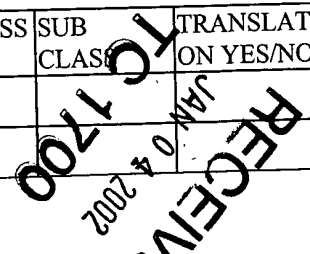
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	A179	5,624,188	04/1997	West			
	A180	5,656,239	08/1997	Stegemeier et al.			
	A181	5,676,212	10/1997	Kuckes			
	A182	5,862,858	01/1999	Wellington et al.			
	A183	5,899,269	05/1999	Wellington et al.			
	A184	5,968,349	10/1999	Duyvesteyn et al.			
	A185	5,984,010	11/1999	Elias et al.			
	A186	5,985,138	11/1999	Humphreys			
	A187	5,997,214	12/1999	de Rouffignac et al.			
	A188	6,016,867	01/2000	Gregoli et al.			
	A189	6,016,868	01/2000	Gregoli et al.			
	A190	6,019,172	02/2000	Wellington et al.			
	A191	6,023,554	02/2000	Vinegar et al.			
	A192	6,056,057	05/2000	Vinegar et al.			
	A193	6,079,499	06/2000	Mikus et al.			
	A194	6,085,512	07/2000	Agee et al.			
	A195	6,094,048	07/2000	Vinegar et al.			
	A196	6,102,122	08/2000	de Rouffignac			
	A197	6,102,622	08/2000	Vinegar et al.			
	A198	6,152,987	11/2000	Ma et al.			
	A199	6,172,124	01/2001	Wolflick et al.			
	A200	6,173,775 B1	01/2001	Elias et al.			
	A201	6,187,465	02/2001	Galloway			
	A202	Re. 30,738	09/1981	Bridges et al.			
	A203	Re. 35,696	12/1997	Mikus			

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLAT ON YES/NO
	A204	121,737	03/1948	Sweden			
	A205	123,136	11/1948	Sweden			



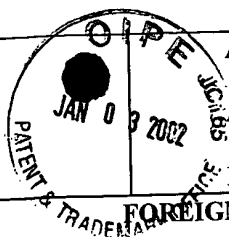
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	A206	123,137	11/1948	Sweden			
	A207	123,138	11/1948	Sweden			
	A208	126,674	11/1949	Sweden			
	A209	1,196,594	11/1985	CA			
	A210	1,253,555	05/1989	CA			
	A211	1,288,043	08/1991	CA			
	A212	156,396	01/1921	GB			
	A213	674,082	06/1952	GB			
	A214	697,189	09/1953	GB			
	A215	1,454,324	11/1976	GB			
	A216	1,501,310	02/1978	GB			
	A217	2,086,416	05/1982	GB			
	A218	1836876	12/1994	SU			
	A219	0570228 B1	09/1996	EP			
	A220	99/01640	01/1999	WO			
	A221	95/06093	03/1995	WO			
	A222	95/12746	05/1995	WO			
	A223	95/33122	12/1995	WO			
	A224	95/12742	05/1995	WO			
	A225	95/12743	05/1995	WO			
	A226	95/12744	05/1995	WO			
	A227	95/12745	05/1995	WO			

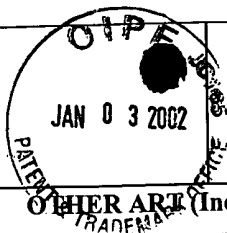
**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

A228	Some Effects of Pressure on Oil-Shale Retorting," Society of Petroleum Engineers Journal, J.H. Bae, September, 196 pp. 287-292.
A229	New in situ shale-oil recovery process uses hot natural gas; The Oil & Gas Journal; May 16, 1966, p. 151.
A230	Evaluation of Downhole Electric Impedance Heating Systems for Paraffin Control in Oil Wells; Industry Applications Society 37 <sup>th</sup> Annual Petroleum and Chemical Industry Conference; The Institute of Electrical and Electronics Engineer Inc., Bosch et al., September 1990, pp. 223-227.
A231	New System Stops Paraffin Build-up; Petroleum Engineer, Eastlund et al., January 1989, (3 pages).
A232	Oil Shale Retorting: Effects of Particle Size and Heating Rate on Oil Evolution and Intraparticle Oil Degradation; Campbell et al. In Situ 2(1), 1978, pp. 1-47.

EXAMINER:

DATE CONSIDERED:

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FILING DATE: April 24, 2001

**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

A233	The Potential For In Situ Retorting of Oil Shale In the Piceance Creek Basin of Northwestern Colorado; Dougan et al Quarterly of the Colorado School of Mines, pp. 57-72.
A234	Retorting Oil Shale Underground-Problems & Possibilities; B.F. Grant, Qtly of Colorado School of Mines, pp 39-46.
A235	Molecular Mechanism of Oil Shale Pyrolysis in Nitrogen and Hydrogen Atmospheres, Hershkowitz et al.; Geochemistry and Chemistry of Oil Shales, American Chemical Society, 5/1983 pp. 301-316.
A236	The Characteristics of a Low Temperature in Situ Shale Oil; George Richard Hill & Paul Dougan, Quarterly of the Colorado School of Mines, 1967; pp. 75-90.
A237	Direct Production Of A Low Pour Point High Gravity Shale Oil; Hill et al., I & EC Product Research and Development, 6(1), March 1967; pp. 52-59.
A238	Refining Of Swedish Shale Oil, L. Lundquist, pp. 621-627.
A239	The Benefits of In Situ Upgrading Reactions to the Integrated Operations of the Orinoco Heavy-Oil Fields and Downstream Facilities, Myron Kuhlman, Society of Petroleum Engineers, June 2000; pp. 1-14.
A240	Monitoring Oil Shale Retorts by Off-Gas Alkene/Alkane Ratios, John H. Raley, Fuel, Vol. 59, June 1980, pp. 419-42
A241	The Shale Oil Question, Old and New Viewpoints, A Lecture in the Engineering Science Academy, Dr. Fredrik Ljungstrom, February 23, 1950, published in Teknisk Trdskrift, January 1951 p. 33-40.
A242	Underground Shale Oil Pyrolysis According to the Ljungstroem Method; Svenska Skifferolje Aktiebolaget (Swedish Shale Oil Corp.), IVA, Vol. 24, 1953, No. 3, pp. 118-123.
A243	Kinetics of Low-Temperature Pyrolysis of Oil Shale by the IITRI RF Process, Sresty et al.; 15 <sup>th</sup> Oil Shale Symposium Colorado School of Mines, April 1982 pp. 1-13.
A244	Bureau of Mines Oil-Shale Research, H.M. Thorne, Quarterly of the Colorado School of Mines, pp. 77-90.
A245	Application of a Microretort to Problems in Shale Pyrolysis, A. W. Weitkamp & L.C. Gutberlet, Ind. Eng. Chem. Process Des. Develop. Vol. 9, No. 3, 1970, pp. 386-395.
A246	Oil Shale, Yen et al., Developments in Petroleum Science 5, 1976, pp. 187-189, 197-198.
A247	The Composition of Green River Shale Oils, Glenn L. Cook, et al., United Nations Symposium on the Development and Utilization of Oil Shale Resources, 1968, pp. 1-23.
A248	High-Pressure Pyrolysis of Green River Oil Shale, Burnham et al., Geochemistry and Chemistry of Oil Shales, American Chemical Society, 1983, pp. 335-351.
A249	Geochemistry and Pyrolysis of Oil Shales, Tissot et al., Geochemistry and Chemistry of Oil Shales, American Chemic Society, 1983, pp. 1-11.
A250	A Possible Mechanism of Alkene/Alkane Production, Burnham et al., Oil Shale, Tar Sands, and Related Materials, American Chemical Society, 1981, pp. 79-92.
A251	The Ljungstroem In-Situ Method of Shale Oil Recovery, G. Salomonsson, Oil Shale and Cannel Coal, Vol. 2, Proceedings of the Second Oil Shale and Cannel Coal Conference, Institute of Petroleum, 1951, London, pp. 260-280
A252	Developments in Technology for Green River Oil Shale, G.U. Dinneen, United Nations Symposium on the Development and Utilization of Oil Shale Resources, Laramie Petroleum Research Center, Bureau of Mines, 1968, pp.1-20.
A253	The Thermal and Structural Properties of a Hanna Basin Coal, R.E. Glass, Transactions of the ASME, Vol. 106, June 1984, pp. 266-271.
A254	The Thermal and Structural Properties of the Coal in the Big Coal Seam, R.E. Glass, In Situ, 8(2), 1984, pp. 193-205.
A255	Investigation of the Temperature Variation of the Thermal Conductivity and Thermal Diffusivity of Coal, Badzioch et al., Fuel, Vol. 43, No. 4, July 1964, pp. 267-280.
A256	On the Mechanism of Kerogen Pyrolysis, Alan K. Burnham & James A. Happe, January 10, 1984 (17 pages).
B1	Proposed Field Test of the Lins Method Thermal Oil Recovery Process in Athabasca McMurray Tar Sands, Husky Oil Company.

EXAMINER:

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#4  
PATENT

1764  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
Wellington, et al.

Serial No.: 09/841,298

Filed: April 24, 2001

For: IN SITU THERMAL PROCESSING  
OF A COAL FORMATION TO  
PRODUCE A MIXTURE OF OLEFINS,  
OXYGENATED HYDROCARBONS,  
AND AROMATIC HYDROCARBONS



§ Examiner: Unknown  
§  
§  
§ Group Art Unit: 1764  
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§  
§ Atty. Dkt: 5659-06900  
§  
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Certificate of Mailing 37 C.F.R. § 1.8(a)

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
Washington, D.C. 20231

Sir:

It is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 (references A257-A348) be considered by the Examiner and made of record. Copies of the listed documents are enclosed for the convenience of the Examiner.

Should any fees be required, the Commissioner is authorized to charge said fees to Conley, Rose & Tayon, P.C. Deposit Account No. 50-1505/5659-06900/EBM.

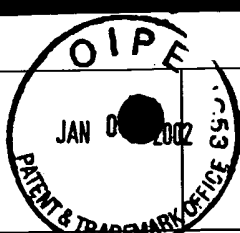
Respectfully submitted,

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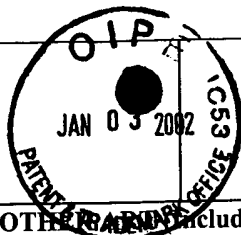
A257	Comparison of Methods for Measuring Kerogen Pyrolysis Rates and Fitting Kinetic Parameters, Burnham et al., Marc 23, 1987, (29 pages).
A258	Further Comparison of Methods for Measuring Kerogen Pyrolysis Rates and Fitting Kinetic Parameters, Burnham et al., September 1987, (16 pages).
A259	Tests of a Mechanism for H <sub>2</sub> S Release During Coal Pyrolysis, Coburn et al., May 31, 1991, (6 pages).
A260	Kinetic Studies of Gas Evolution During Pyrolysis of Subbituminous Coal, J. H. Campbell et al., May 11, 1976, (14 pages).
A261	Excavation of the Partial Seam Crip Underground Coal Gasification Test Site, Robert J. Cena, August 14, 1987, (11 pages).
A262	Evolution of Sulfur Gases During Coal Pyrolysis, Oh et al., February 3, 1988, (11 pages).
A263	Coal Pyrolysis and Methane Decomposition In the Presence of a Hot Char Bed, Peters et al., August 1983, (21 pages)
A264	Pyrolysis Kinetics and Maturation of Coals from the San Juan Basin, John G. Reynolds & Alan K. Burnham, Decemb 1992, (30 pages).
A265	Numerical Model of Coal Gasification in a Packed Bed, A.M. Winslow, April 1976 (27 pages).
A266	LLL In-Situ Coal Gasification Program, Stephens et al., June, 14, 1976 (12 pages)
A267	Pyrolysis of Subbituminous Coal as it Relates to In-Situ Coal Gasification, J.H. Campbell, January 17, 1977 (20 page
A268	The Historical Development of Underground Coal Gasification, D. Olness & D.W. Gregg, June 30, 1977 (60 pages).
A269	Laboratory Measurements of Groundwater Leaching and Transport of Pollutants Produced During Underground Coal Gasification, V.A. Dalton & J.H. Campbell, March 1, 1978 (21 pages).
A270	The Hoe Creek II Field Experiment of Underground Coal Gasification, Preliminary Results, Aiman et al., February 27 1978 (26 pages).
A271	Ground-Water and Subsidence Investigations of the LLL In Situ Coal Gasification Experiments, Mead et al, July 17-2 1978 (31 pages).
A272	Geotechnical Instrumentation Applied to In Situ Coal Gasification Induced Subsidence, Ganow et al. June 21, 1978 (1 pages).
A273	The Use of Tracers in Laboratory and Field Tests of Underground Coal Gasification and Oil Shale Retorting, Lyczkowski et al., June 16, 1978 (19 pages).
A274	Underground Gasification of Rocky Mountain Coal, D.R. Stephens and R.W. Hill, July 18, 1978 (15 pages).
A275	High-BTU Gas Via In Situ Coal Gasification, Stephens et al., October, 1978 (41 pages).
A276	A One-Dimensional Model for In Situ Coal Gasification, Thorsness et al., August 25, 1978 (76 pages).
A277	Control Aspects of Underground Coal Gasification: LLL Investigations of Ground-Water and Subsidence Effects, Mead et al., November 10, 1978 (21 pages).
A278	Environmental Controls for Underground Coal Gasification: Ground-Water Effects and Control Technologies, Warre Mead & Ellen Raber, March 14, 1980 (19 pages).
A279	Results from the Third LLL Underground Coal Gasification Experiment at Hoe Creek, Hill et al., May 20, 1980 (12 pages).
A280	Results From the Hoe Creek No. 3 Underground Coal Gasification Experiment, Thorsness et al., May 1980, (11 page
A281	Steam Tracer Experiment at the Hoe Creek No. 3 Underground Coal Gasification Field Test, C.B. Thorsness, November 26, 1980 (51 pages).
A282	Computer Models to Support Investigations of Surface Subsidence and Associated Ground Motion Induced by Underground Coal Gasification, R.T. Langland & B.C. Trent, July 1981 (16 pages).

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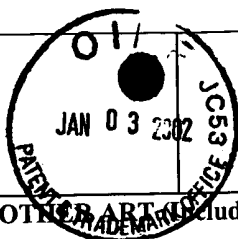
**OTHER INFORMATION Including Author, Title, Date, Pertinent Pages, Etc.)**

A283	Burn Cavity Growth During the Hoe Creek No. 3 Underground Coal Gasification Experiment, R.W. Hill, June 8, 198 (28 pages).
A284	The Controlled Retracting Injection Point (Crip) System: A Modified Stream Method for <u>In Site</u> Coal Gasification, R.W. Hill & M.J. Shannon, April 15, 1981 (11 pages).
A285	Coal Block Gasification Experiments: Laboratory Results and Field Plans: C.B. Thorsness & R.W. Hill, July 1981 (23 pages).
A286	Laboratory Scale Simulation of Underground Coal Gasification: Experiment and Theory, J.R. Creighton & (27 pages)
A287	Underground Coal Gasification – A Leading Contender in the Synfuels Industry, D.R. Stephens, October 27, 1981 (42 pages).
A288	Computer Models to Support Investigations of Surface Subsidence and Associated Ground Motion Induced by Underground Coal Gasification, B.C. Trent & R.T. Langland, August 1981 (40 pages).
A289	The Hoe Creek Experiments: LLNL's Underground Coal Gasification Project in Wyoming, D.R. Stephens, October 1981 (162 pages).
A290	Technical Underground Coal Gasification Summation: 1982 Status, Stephens et al., July 1982 (22 pages).
A291	Review of Underground Coal Gasification Field Experiments at Hoe Creek (34 pages).
A292	Underground Coal Gasification Using Oxygen and Steam, Stephens et al., January 19, 1984 (37 pages).
A293	Shale Oil Cracking Kinetics and Diagnostics, Bissell et al., November 1983, (27 pages).
A294	Mathematical Modeling of Modified In Situ and Aboveground Oil Shale Retorting, Robert L. Braun, January 1981 (4 pages).
A295	Progress Report on Computer Model for In Situ Oil Shale Retorting, R.L. Braun & R.C.Y. Chin, July 14, 1977 (34 pages).
A296	Analysis of Multiple Gas-Solid Reactions During the Gasification of Char in Oil Shale Blocks, Braun et al., April 198 (14 pages).
A297	Chemical Kinetics and Oil Shale Process Design, Alan K. Burnham, July 1993 (16 pages).
A298	Reaction Kinetics and Diagnostics For Oil Shale Retorting, Alan K. Burnham, October 19, 1981 (32 pages).
A299	Reaction Kinetics Between Steam and Oil Shale Char, A.K. Burnham, October 1978 (8 pages).
A300	General Kinetic Model of Oil Shale Pyrolysis, Alan K. Burnham & Robert L. Braun, December 1984 (25 pages).
A301	General Model of Oil Shale Pyrolysis, Alan K. Burnham & Robert L. Braun, November 1983 (22 pages).
A302	Pyrolysis Kinetics for Green River Oil Shale From the Saline Zone, Burnham et al., February, 1982 (33 pages).
A303	Reaction Kinetics Between CO <sub>2</sub> and Oil Shale Char, A.K. Burnham, March 22, 1978 (9 pages front & back).
A304	Reaction Kinetics Between CO <sub>2</sub> and Oil Shale Residual Carbon. I. Effect of Heating Rate on Reactivity, Alan K. Burnham, July 11, 1978 (11 pages front and back).
A305	High-Pressure Pyrolysis of Colorado Oil Shale, Alan K. Burnham & Mary F. Singleton, October 1982 (23 pages).
A306	A Possible Mechanism Of Alkene/Alkane Production in Oil Shale Retorting, A.K. Burnham, R.L. Ward, November 2 1980 (20 pages).
A307	Enthalpy Relations For Eastern Oil Shale, David W. Camp, November 1987 (13 pages).
A308	Oil Shale Retorting: Part 3 A Correlation of Shale Oil 1-Alkene/n-Alkane Ratios With Yield, Coburn et al., August 1, 1977 (18 pages).
A309	The Composition of Green River Shale Oil, Glen L. Cook, et al., 1968 (12 pages).

EXAMINER:

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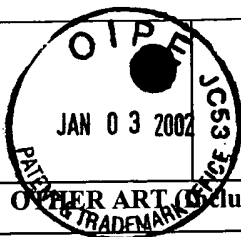
A310	On-line, Mass Spectrometric Determination of Ammonia From Oil Shale Pyrolysis Using Isobutane Chemical Ionization, Crawford et al., March 1988 (16 pages).
A311	Thermal Degradation of Green River Kerogen at 150° to 350° C Rate of Production Formation, J.J. Cummins & W.E. Robinson, 1972 (18 pages).
A312	Retorting of Green River Oil Shale Under High-Pressure Hydrogen Atmospheres, LaRue et al., June 1977 (38 pages).
A313	Retorting and Combustion Processes In Surface Oil-Shale Retorts, A.E. Lewis & R.L. Braun, May 2, 1980 (12 pages)
A314	Oil Shale Retorting Processes: A Technical Overview, Lewis et al., March 1984 (18 pages).
A315	Study of Gas Evolution During Oil Shale Pyrolysis by TQMS, Oh et al., February 1988 (10 pages).
A316	The Permittivity and Electrical Conductivity of Oil Shale, A.J. Piwinskii & A. Duba, April 28, 1975 (12 pages).
A317	Oil Degradation During Oil Shale Retorting, J.H. Raley & R.L. Braun, May 24, 1976 (14 pages).
A318	Kinetic Analysis of California Oil Shale By Programmed Temperature Microphyrolysis, John G. Reynolds & Alan K. Burnham, December 9, 1991 (14 pages).
A319	Analysis of Oil Shale and Petroleum Source Rock Pyrolysis by Triple Quadrupole Mass Spectrometry: Comparisons o Gas Evolution at the Heating Rate of 10°C/Min., Reynolds et al. October 5, 1990 (57 pages).
A320	Catalytic Activity of Oxidized (Combusted) Oil Shale for Removal of Nitrogen Oxides with Ammonia as a Reductant in Combustion Gas Streams, Part II, Reynolds et al., January 4, 1993 (9 pages).
A321	Fluidized-Bed Pyrolysis of Oil Shale, J.H. Richardson & E.B. Huss, October 1981 (27 pages).
A322	Retorting Kinetics for Oil Shale From Fluidized-Bed Pyrolysis, Richardson et al., December 1981 (30 pages).
A323	Recent Experimental Developments in Retorting Oil Shale at the Lawrence Livermore Laboratory, Albert J. Rothman August 1978 (32 pages).
A324	The Lawrence Livermore Laboratory Oil Shale Retorts, Sandholtz et al. September 18, 1978 (30 pages).
A325	Operating Laboratory Oil Shale Retorts In An In-Situ Mode, W. A. Sandholtz et al., August 18, 1977 (16 pages).
A326	Some Relationships of Thermal Effects to Rubble-Bed Structure and Gas-Flow Patterns in Oil Shale Retorts, W. A. Sandholtz, March 1980 (19 pages).
A327	Assay Products from Green River Oil Shale, Singleton et al., February 18, 1986 (213 pages).
A328	Biomarkers in Oil Shale: Occurrence and Applications, Singleton et al., October 1982 (28 pages).
A329	Occurrence of Biomarkers in Green River Shale Oil, Singleton et al., March 1983 (29 pages).
A330	An Instrumentation Proposal for Retorts in the Demonstration Phase of Oil Shale Development, Clyde J. Sisemore, April 19, 1977, (34 pages).
A331	A Laboratory Apparatus for Controlled Time/Temperature Retorting of Oil Shale, Stout et al., November 1, 1976 (19 pages).
A332	SO <sub>2</sub> Emissions from the Oxidation of Retorted Oil Shale, Taylor et al., November 1981 (9 pages).
A333	Nitric Oxide (NO) Reduction by Retorted Oil Shale, R.W. Taylor & C.J. Morris, October 1983 (16 pages).
A334	Coproduction of Oil and Electric Power from Colorado Oil Shale, P. Henrik Wallman, September 24, 1991 (20 pages)
A335	<sup>13</sup> C NMR Studies of Shale Oil, Raymond L. Ward & Alan K. Burnham, August 1982 (22 pages).
A336	Identification of <sup>13</sup> C NMR of Carbon Types in Shale Oil and their Relationship to Pyrolysis Conditions, Raymond L. Ward & Alan K. Burnham, September 1983 (27 pages).
A337	A Laboratory Study of Green River Oil Shale Retorting Under Pressure In a Nitrogen Atmosphere, Wise et al., September 1988 (24 pages).

EXAMINER:

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OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

A338	Quantitative Analysis and Evolution of Sulfur-Containing Gases from Oil Shale Pyrolysis by Triple Quadrupole Mass Spectrometry, Wong et al., November 1983 (34 pages).
A339	Quantitative Analysis & Kinetics of Trace Sulfur Gas Species from Oil Shale Pyrolysis by Triple Quadrupole Mass Spectrometry (TQMS), Wong et al., July 5-7, 1983 (34 pages).
A340	Application of Self-Adaptive Detector System on a Triple Quadrupole MS/MS to High Explosives and Sulfur-Containing Pyrolysis Gases from Oil Shale, Carla M. Wong & Richard W. Crawford, October 1983 (17 pages).
A341	An Evaluation of Triple Quadrupole MS/MS for On-Line Gas Analyses of Trace Sulfur Compounds from Oil Shale Processing, Wong et al., January 1985 (30 pages).
A342	Source and Kinetics of Sulfur Species in Oil Shale Pyrolysis Gas by Triple Quadrupole Mass Spectrometry, Wong et al., October 1983 (14 pages).
A343	The Centralia Partial Seam CRIP Underground Coal Gasification Experiment, Cena et al., June 1984 (38 pages).
A344	Results of the Centralia Underground Coal Gasification Field Test, Hill et al., August 1984 (18 pages).
A345	Excavation of the Partial Seam Crip Underground Coal Gasification Test Site, Cena et al., August 14, 1987 (11 pages).
A346	Assessment of the CRIP Process for Underground Coal Gasification: The Rocky Mountain I Test, Cena et al., August 1988 (22 pages).
A347	Mild Coal Gasification-Product Separation, Pilot-Unit Support, Twin Screw Heat Transfer, and H <sub>2</sub> S Evolution, Camp et al., August 9, 1991 (12 pages).
A348	Underground Coal Gasification Site Selection and Characterization in Washington State and Gasification Test Design Randolph Stone & R.W. Hill, September 10, 1980 (62 pages).

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